

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-22. (Canceled)

23. (Previously presented) A surface treated steel sheet for a battery case, comprising:

a steel sheet having two surfaces, one of said two surfaces to be used as the inner surface of the battery case and the other of said two surfaces to be used as the outer surface of the battery case;

a diffusion layer of a nickel-cobalt-phosphorus alloy formed as an uppermost layer at said one of said two surfaces to be used as the inner surface of the battery case;

an iron-nickel diffusion layer between said diffusion layer of a nickel-cobalt-phosphorus alloy and said steel sheet;

a nickel layer formed as an upper layer at said one of said two surfaces to be used as the outer surface of the battery case; and

an iron-nickel diffusion layer between said nickel layer and said steel sheet.

24. (Previously presented) The surface treated steel sheet for a battery case according to claim 23, further comprising a nickel layer formed as an intermediate layer between said diffusion layer of a nickel-cobalt-phosphorus alloy and said iron-nickel diffusion layer.

25. (Previously presented) The surface treated steel sheet for a battery case according to claim 23, wherein in the diffusion layer of a nickel-cobalt-phosphorus alloy, the cobalt content is within a range from 5 to 30% by weight and the phosphorus content is within a range from 1 to 12% by weight in the nickel-cobalt-phosphorus alloy.

26. (New) A method of manufacturing a surface treated steel sheet for a battery case with excellent battery performance, said method comprising the steps of:

(i) forming nickel plating layers by electrolytic plating on both sides of a steel sheet;

(ii) forming a nickel-cobalt-phosphorus plating layer on said nickel plating layer by electrolytic plating at a surface to be used as the inner surface of the battery case;

(iii) forming an iron-nickel diffusion layer and a diffusion layer of a nickel-cobalt-phosphorus alloy by heat treatment after forming said nickel-cobalt-phosphorus plating

layer at the surface to be used as the inner surface of the battery case; and

(iv) forming an iron-nickel diffusion layer and a nickel layer without diffusion of iron by heat treatment at a surface to be used as the outer surface of the battery case.

27. (New) The method of claim 26, wherein said heat treatment after forming said nickel-cobalt-phosphorus plating layer comprises the steps of:

forming the iron-nickel diffusion layer and a diffusion layer of the nickel-cobalt-phosphorus alloy at a surface to be used as the inner surface of the battery case, and

forming the iron-nickel diffusion layer and the nickel layer without diffusion of iron at the surface to be used as the outer surface of the battery case.

28. (New) The method of claim 26, wherein in the diffusion layer of the nickel-cobalt-phosphorus alloy, the cobalt content is within a range from 5 to 30% by weight and the phosphorus content is within a range from 1 to 12% by weight in the nickel-cobalt-phosphorus alloy.